



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| | | | | |
|---|-------------|----------------------|-------------------------------|------------------|
| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/605,791 | 10/27/2003 | Li-Yi Chen | CMOP0025USA | 2790 |
| 27765 | 7590 | 09/02/2008 | | |
| NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116 | | | EXAMINER BECK, ALEXANDER S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2629 | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 09/02/2008 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu.uspto@gmail.com
Patent.admin.uspto.Rcv@naipo.com
mis.ap.uspto@naipo.com.tw

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/605,791 | Applicant(s) CHEN ET AL. | |
| | Examiner ALEXANDER S. BECK | Art Unit 2629 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 9-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,12-16 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 9-11 and 17-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Acknowledgment is made of the amendment filed Jun. 2, 2008, in which: claims 1 and 15 are amended; and the rejections of the claims are traversed. Claims 1, 3-7 and 9-22 are currently pending and an Office action on the merits follows.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-7 and 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 7,136,040 to Park et al. ("Park").

As to claim 1, Park discloses a display panel (Park, Fig. 3) comprising: a first scanning band (e.g., G_1 through G_{m-10}), a second scanning band (e.g., G_{m+11} through G_{2m}) and a third scanning band (e.g., G_{m-9} through G_{m+10}) positioned between the first scanning band and the second scanning band, and each scanning band including a plurality of parallel scanning lines (e.g., G_x wherein x is an integer between 1 and $2m$), wherein the scanning lines of the first scanning band and the second scanning band scan along a first scanning direction (e.g., top-to-bottom) and a second scanning direction (e.g., bottom-to-

top) according to a first scanning signal (e.g., wherein the claimed “first scanning signal” is a signal for scanning lines G_1 through G_{m-10} and lines G_{m+11} through G_{2m}) (Park, col. 7, l. 12 – col. 8, l. 8).

Park discloses the display panel (Park, Fig. 3) further comprising: plurality of parallel data lines (e.g., D1 through DN) extending across the first scanning band, the second scanning band and the third scanning band, the data lines and the scanning lines being perpendicular to each other, and each of the data lines including a disconnecting point positioned in the third scanning band (e.g., there is a disconnecting point for each of the data lines between scanning lines G_m and G_{m+1} , which is within the third scanning band of scanning lines G_{m-9} through G_{m+10}); and a plurality of pixel units, each pixel unit being positioned around an intersection point of one scanning line and one data line and being electrically controlled by both the scanning line and the data line (Park, col. 7, l. 12 – col. 8, l. 8).

Park further discloses the display panel (Park, Fig. 3) comprising: a first data driver (Park, 210) and a second data driver (Park, 220) electrically connected to the data lines for inputting image data into each pixel unit, such that when scanning the first scanning band and the second scanning band simultaneously, the first data driver inputs the corresponding image data into the first scanning band and the second data driver inputs the corresponding image data into the second scanning band, and when the scanning lines of the third scanning band scan in sequence along a third scanning direction according to a second scanning signal sequential to the simultaneous scanning of the first and second bands (e.g., wherein the claimed “second scanning signal” is a signal for scanning lines G_{m-9} through G_{m+10}), the first data driver and the second data driver input the same image data into each pixel unit positioned in the third scanning bands simultaneously (Park, col. 7, l. 12 - col. 8, l. 8).

Examiner respectfully submits that there are no structural differences between the claimed display panel and the display panel of Park. Furthermore, examiner respectfully

submits that the display panel of Park is capable of performing the intended use of the claimed display with respect to “the first data driver and the second data driver input the same image data into each pixel unit positioned in the third scanning bands simultaneously”. For example, the display panel of Park is capable of meeting this claim limitation by displaying an image frame of uniform gradation through out (i.e., same image data). Moreover, examiner respectfully submits that the claims as recited do not preclude the examiner from this interpretation.

As to claim 3, Park discloses a signal supplier (Park, 500) for supplying each pixel unit with the image data (Park, col. 7, l. 64 – col. 8, l. 8).

As to claim 4, Park discloses a memory (Park, 400) for storing the image data supplied by the signal supplier (Park, 500), with the stored image data being further outputted from the memory into the first data driver (Park, 210) and the second data driver (Park, 220) (Park, col. 7, l. 58 – col. 8, l. 8).

As to claim 5, Park discloses a gate driver (Park, 310, 320) for applying scanning signals to the scanning lines of each scanning band (Park, col. 7, ll. 43-57).

As to claim 6, Park discloses wherein when the first data driver and the second data driver respectively input the image data into each pixel unit positioned in the first scanning band and the second scanning band, the gate driver applies the first scanning signal to the scanning lines of the first scanning band in sequence according to the first scanning direction so as to enable the pixel unit electrically controlled by each scanning line of the first scanning band to accept a corresponding image data, and the first scanning signal is simultaneously applied to the scanning lines of the second scanning band in sequence according to the second scanning direction so as to enable the pixel unit

electrically controlled by each scanning line of the second scanning band to accept a corresponding image data (Park, col. 7, l. 12 - col. 8, l. 8).

As to claim 7, Park discloses wherein the gate driver applies the second scanning signal to the scanning lines of the third scanning band in sequence according to the third scanning direction (Park, col. 7, ll. 43-57).

As to claim 12, Park discloses wherein the first scanning direction and the third scanning direction are opposite (Park, col. 7, ll. 43-57).

As to claim 13, Park discloses wherein the third scanning direction and the first scanning direction are identical (Park, col. 7, ll. 43-57).

As to claim 14, Park discloses wherein the third scanning direction and the first scanning direction are opposite (Park, col. 7, ll. 43-57).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 15, 16 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park.

As to claims 15, 16 and 20-22, which recite the method of driving the liquid crystal display panel, all of the claim limitations have been discussed in relation to Park as detailed in the above paragraphs with respect to claims 1-7 and 12-14.

However, since these claims are directed towards a method of driving the display device rather than just the display device itself, Park does not disclose expressly a method for driving the display, comprising the steps of: inputting the same image data from the first data driver and second data driver simultaneously into each pixel unit positioned in the third scanning band via data lines.

However, the examiner takes Official Notice that a method of driving a display device comprising the steps of: displaying frame data having any combination of data, including uniform data throughout, is old and well-known in the art. Thus, at the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the method of driving the display device of Park such that any combination of data, including uniform data throughout, was displayed on the display device. The suggestion/motivation for doing so would have been to realize a uniform gradation display for various applications such as in a blanking period.

Allowable Subject Matter

7. Claims 9-11 and 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

As to claim 9, the prior art of record fails to teach or suggest a display panel comprising: a first scanning band, a second scanning band and a third scanning band positioned between the first scanning band and the second scanning band; wherein each of a plurality of data lines include a disconnecting point positioned in the third scanning band; a first data driver and a second data driver for scanning the first and second scanning bands simultaneously in respective first and second directions, wherein the scanning lines of the third scanning band scan in sequence along a third scanning direction sequential to the simultaneous scanning of the first and second bands, wherein the first scanning direction and the second scanning direction are identical, as claimed.

As to claim 17, the prior art of record fails to teach or suggest a driving method for a liquid crystal display panel including a first scanning band, a second scanning band, a third scanning band positioned between the first scanning band and the second scanning band, a plurality of data lines including a disconnecting point positioned in the third scanning band, comprising the steps of: scanning the first and second scanning bands simultaneously in respective first and second directions; and scanning the third scanning band in sequence according to a third direction sequential to the simultaneous scanning of the first and second bands, wherein the first scanning direction and the second scanning direction are identical, as claimed.

Response to Arguments

8. Applicant's arguments with respect to claims 1, 3-7 and 9-22 have been considered but are moot in view of the new ground of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER S. BECK whose telephone number is (571)272-7765. The examiner can normally be reached on M-F, 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sumati Lefkowitz/
Supervisory Patent Examiner, Art Unit 2629

asb